



MagCore[®] Genomic DNA Whole Blood Kit

For purification of genomic DNA from human whole blood by using MagCore[®] HF16 System of RBC Bioscience Corp.

Cat. No. MGB400-01 // MGB-400-02

Cartridge Code: 101



MagCore HF16 Automated DNA/RNA Purification System



MagCore® HF16 System

Reliable Nucleic Acid Purification

MagCore HF16 System is a simple, fast and cost-effective technique to automatically purify nucleic acids from a diverse range of sample sources. With the pre-programmed protocols and magnetic bead based reagent cartridges the system provides consistent and stable nucleic acid purification for every busy laboratory.

Advantage

Touch Button operation means simplicity

Rapid Results in about 30 minutes for DNA purification

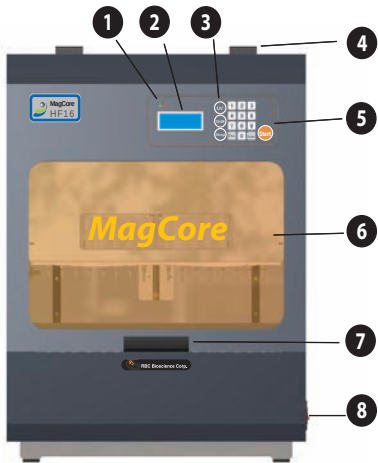
Flexible Design means single samples can be run with no waste

Batch Purify up to 16 samples at one time

Diverse Purification kits and protocols available

Economic Pricing of reagents and instrument

MagCore HF16 Introduction



- 1. Indicator LCD
- 2. LCM Display Screen
- 3. UV Key
- 4. Aluminum Hinge
- 5. Keypress Panel
- 6. Protective Acryl Board
- 7. Door Pull
- 8. Power Switch
- 9. UV Lamp
- 10. Door-Open Detection Control
- 11. Door Pry
- 12. "MagCore" LCD Window
- 13. Syringe Unit
- 14. Operation Area

Instrument Supplied Accessories



Cartridge Rack X 2



T-Rack X 2



Empty Cartridge X 20



Tip Holder X 50



Tip X 50

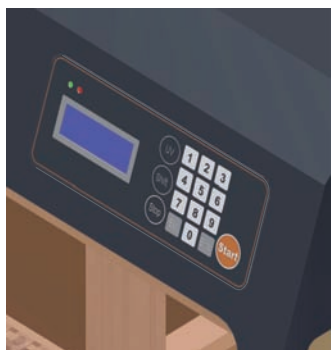
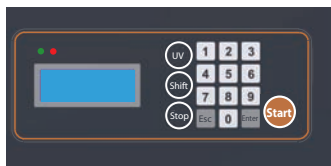


Sample/Elution Tube X 50

MagCore HF16 Specification

Model	HF16
Processing Capacity	16 samples per batch
Protocols V1.01	Programs built-in. Whole Blood (200/400ul), Viral Nucleic Acid (DNA/RNA), Tissue Genomic DNA, Plant Genomic DNA
System Method	Cellulose coated magnetic beads
Sample Volume	200/400/1,200µl (2,400µl available on request with optional 2.4ml Rack)
Elution Volume	60/100/150/200 µl
Yield	Average 6µg Genomic DNA / 200µl human whole blood
Purity	O.D. 1.8-2.0 $A_{260/280}$ ratio
Processing Time	30-70 minutes (depends on sample type and method)
System Components	1. Pipetting Unit: Dispensing, transferring, X-Z two axis movements. 2. Electric Control: Internal microprocessor 3. UV Light: Power 5W, life duration >1,000 Hrs 4. Heating Block: RT~100°C 5. Display Screen: 3 inches LCM Screen with keypress Panel 6. Accessories: T- Rack, Cartridge Rack , Empty Cartridges, Tip/Holders , Microcentrifuge Tube, Syringe O-ring and Grease
Power Supply	Voltage: AC 100-240V; Frequency: 50/60Hz; Power Consumption >1.0KVA
Dimension	W550 X D660 X H680 (mm) / W21.65 X D25.98 X H26.77 (inches)
Net Weight	70kg / 155lbs

LCM Display Screen and Keypress Panel



MagCore HF16 provides a touch button keypress panel for you to communicate with your instrument. The number keys give users to input Cartridge Code which specified on the Reagent Cartridge to run built-in program automatically, or to select desired volumes at start-up sample and final elution steps.

LCM Display Screen which with sapphire background, shows clear information that the MagCore HF16 is currently performing.

Special function of buttons described as:

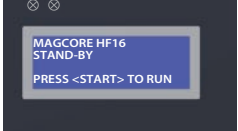
- UV** UV button is designed to turn on UV Lamp while your MagCore HF16 needs to be sterilized after running contagious samples. Options with 30 / 60 mins.
- Shift** Shift button is designed for calibrating position accuracy at MagCore HF16 System, **DO NOT** execute this program without trained engineer aside.
- Stop** Stop button is designed for going back to "Stand-By" menu at program completed, or for **EMERGENCY STOP** use.

Operation Procedures



1

Turn on power switch located at the right hand side of MagCore HF16. A beep sound can be heard and the machine is on "Stand-By" condition.

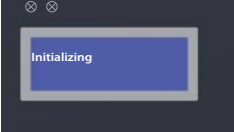


2

LCM display screen shows "Stand-By" as left picture.

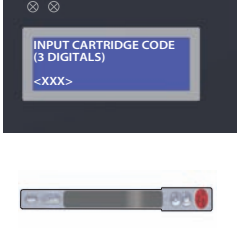
Note:

At this step, press **UV** button, to perform UV decontamination



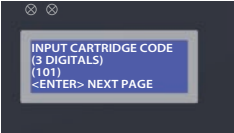
3

After press **Start** button, machine runs program of calibration, initialize to move all axis to original factory positions.



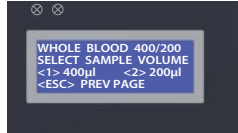
4

Input Cartridge Code : **101** to run whole blood protocol.
Cartridge Code is shown on your Reagent Cartridge and the cover of user manual.



5

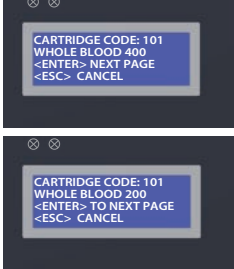
Confirm your input code again and press **Enter** to next page for sample volume selection.



6

Whole Blood 400/200 protocols installed.

Press **1** for 400ul sample
Press **2** for 200ul sample
Press **Esc** to re-enter cartridge code



7

Press **1** for 400ul sample
Press **Enter** to next page
Press **Esc** to **cancel** whole procedures and back to "Stand-By" menu.

Press **2** for 200ul sample
Press **Enter** to next page
Press **Esc** to **cancel** whole procedures and back to "Stand-By" menu.

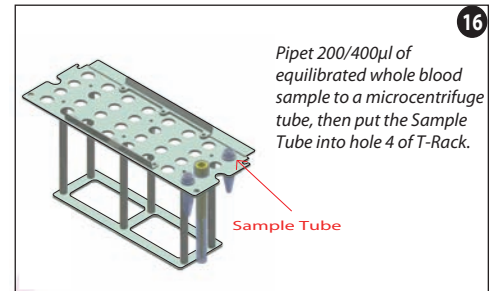
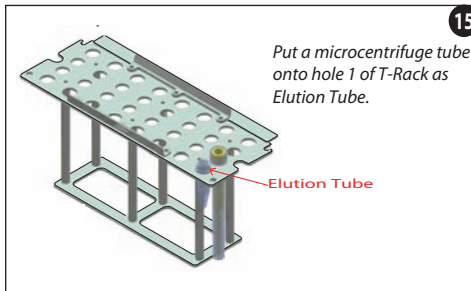
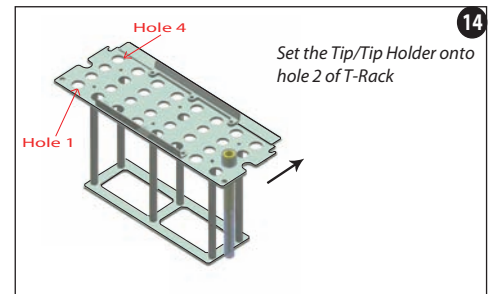
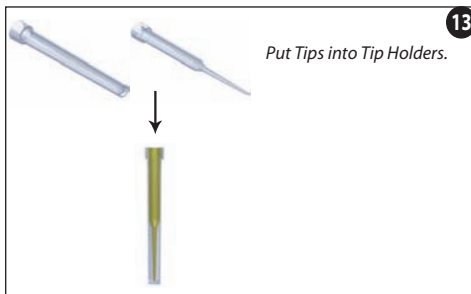
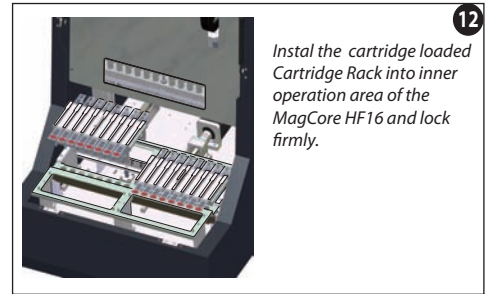
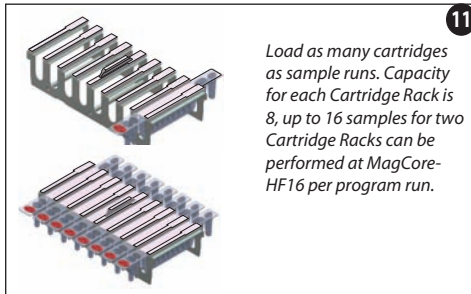
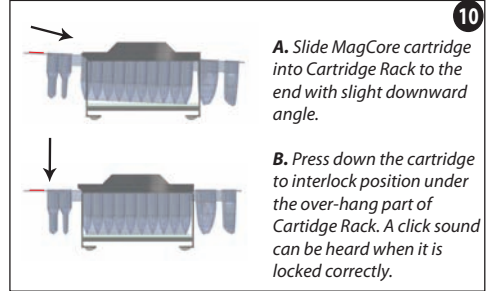
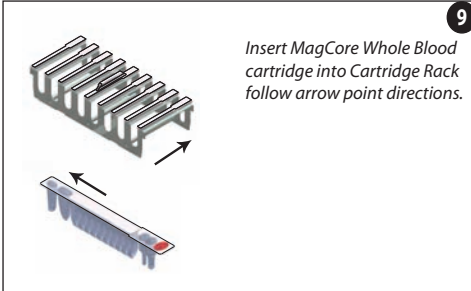


8

At this step prepare racks to operation area. (see Step 9-18)

After racks loaded then press **Enter** to next page for elution volume selection.

Operation Procedures



Operation Procedures



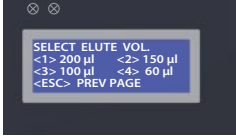
17

Install the Tip/Holder and Sample/Elution Tubes loaded T-Rack into outer operation area of the MagCore HF16 and lock firmly.



18

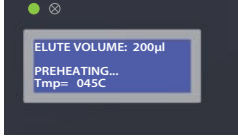
Pull down the front door to interlock position and then press **Enter** to next page for elution volume selection.



19

Select final elution volume

<1> 200µl
<2> 150µl
<3> 100µl
<4> 60µl



20

MagCore HF16 in process of selected protocol at this step. The Green Indicat LCD lights up and Heating Block starts to heat up to 60°C for Lysis Step.



21

During MagCore HF16 is running program, the "MagCore" LCD lights up at all times.
DO NOT open the door at this moment, it causes emergent stop and you might lose your samples by machine interruption.



22

While program finished, a beep sound can be heard. and green Indicate LCD light went out.

LCM displays as left picutre.



23

Lift up the front door to the uppermost position, and take out Elution Tube with purified DNA, direct for downstram applications in PCR and RT-PCR, or store at -20°C for long term stroage.

Discard all disposables under proper procedures.



24

After clean up disposables. you can choose to

Start: run the same protocol again.

Stop: to "Stand-By" menu for UV sterilization or power shut down.

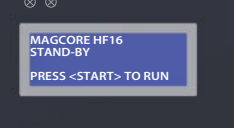
UV Sterilization

1



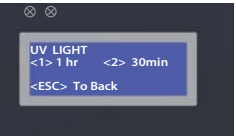
Turn on power switch located at the right hand side of MagCore HF16. A beep sound can be heard and the machine is on "Stand-By" condition.

2



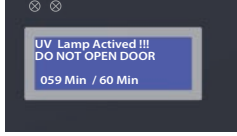
LCM display screen shows "Stand-By" menu as left picture.

3



Press **UV** button to proceed UV sterilization with 30/60 mins of time options.
Esc: to "Stand-By" menu

4



UV lamp activates and count down with selected time at minutes.
MagCore HF16 will go back to "Stand-By" menu once UV sterilization procedure completed.

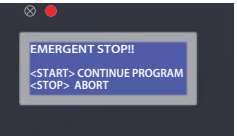
Door-Open Interruption / Emergent Stop

1



If the front door was opened during program performing, MagCore HF16 stops all mechanical movements immediately due to safety consideration.

2



LCM display screen shows warning sign, Red Indicate LCD lights up and a beep sound can be heard.
Pull down the front door, and select
Start : continue program.
Stop : abort program and back to "Stand-By" menu.

3



In case of emergency, press "STOP" button at anytime. LCM display screen shows warning sign, Red Indicate LCD lights up and a beep sound can be heard.

4



After machnical dysfunction eliminated, select
Start : continue program.
Stop : abort program and back to "Stand-By" menu.



Kit Contents

MGB400-01

<i>Pre-filled Cartridge Reagent</i>	36
<i>Pipet Tip</i>	36
<i>Tip Holder</i>	36
<i>Microcentrifuge Tube</i>	72
<i>Tube Cap</i>	36

MGB400-02

<i>Pre-filled Cartridge Reagent</i>	96
<i>Pipet Tip</i>	100
<i>Tip Holder</i>	100
<i>Microcentrifuge Tube</i>	200
<i>Tube Cap</i>	100



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